

Operating Instructions

Ex d Enclosures in Aluminium or Stainless Steel / Flameproof Encapsulation

> 8264/- Empty Enclosure



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2 General Information

2.1 Manufacturer







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2.2 Operating Instructions Information

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We reserve the right to make technical changes without notice.

2.3 Symbols Used

	Action request: Describes actions to be carried out by the user.
	Reaction sign: Describes the results or the reactions to the actions taken.
	Bullet
	Sentinel: Describes the notes and recommendations.
	Warning sign; danger from energised parts!
	Warning sign: Danger due to an explosive atmosphere!

3 General Safety Instructions

3.1 Safety instructions for assembly and operating personnel

The operating instructions contain basic safety instructions which are to be observed during installation, operation and maintenance. Non-observance will endanger persons, plant and the environment.

WARNING

Danger due to unauthorised work being performed on the device!

- ▷ There is a risk of injury to persons and damage to equipment.
- ▶ Assembly, installation, commissioning, operation and maintenance must only be performed by personnel who are both authorised and suitably trained for this purpose.

Before assembly/commissioning:

- ▶ Read through the operating instructions.
- ▶ Give adequate training to the assembly and operating personnel.
- ▶ Ensure that the contents of the operating instructions are fully understood by the personnel in charge.
- ▶ The national installation and assembly regulations (e.g. IEC/EN 60079-14) apply.

If you have questions:

- ▶ Contact the manufacturer.

When operating the devices:

- ▶ Ensure the operating instructions are made available on location at all times.
- ▶ Observe safety instructions.
- ▶ Observe national safety instructions and accident prevention regulations.
- ▶ Only run the device according to its performance data.
- ▶ Servicing/maintenance or repair work which are not described in the operating instructions must not be performed without prior agreement with the manufacturer.
- ▶ Any damage may render explosion protection of the device null and void.
- ▶ No changes to the device impairing their explosion protection are permitted.
- ▶ Install the device only if it is undamaged, dry and clean.

3.2 Warnings

Warnings are sub-divided in these operating instructions according to the following scheme:

WARNING

Type and source of the danger!

- ▷ Possible consequences.
- ▶ Measures to avoid danger.

They are always identified by the signalling word "WARNING" and sometimes also have a symbol which is specific to the danger involved.

3.3 Conformity to Standards

The empty enclosures 8264 comply with the following standards and directives:

- ✗ Directive 94/9/EC
- ✗ IEC 60079-0, IEC 60079-1, IEC 61241-0, IEC 61241-1
- ✗ EN 60079-0, EN 60079-1, EN 61241-0, EN 61241-1

4 Designated Use

The enclosures are used to build motor starters, control stations and terminal boxes. Furthermore they are suitable for measuring equipment and customer specific control units.

By using this technology the installation of sparcing and arcing equipment in a Zone 1, 2, 21 or 22 application is enabled.




For direct cable entry into the enclosures flameproof cable entry glands or threaded holes to the conduit connection can be used. For indirect cable entry connection enclosures, which comply with increased safety type of protection, are used, e.g. series 8146 and 8125 enclosures.

WARNING

Use the device for its intended purpose only!

- ▶ Otherwise, the manufacturer's liability and warranty expire.
- ▶ Only use the device under the operating conditions described in the operating instructions.
- ▶ The device must be used in areas subject to explosion hazards only according to these operating instructions.

5 Technical Data

Explosion protection	
Gas explosion protection	 II 2G Ex d IIB  II 2G Ex d IIB + H ₂ (on request)
Gas explosion protection (IECEx)	Ex d IIB Ex d IIB + H ₂ (on request)
Dust explosion protection	 II 2D Ex tD A21 IP6x
Dust explosion protection (IECEx)	Ex tD A21 IP6x
Certificates	KEMA 01 ATEX 2145 U
IECEx certification	IECEx KEM 07.0050U
Rated operational voltage U _e	max. 11 kV, AC/DC
Rated operational current I _e	max. 1250 A
Terminals	max. 300 mm ²
Degree of protection	Gas: IP54, IP66 optional Dust: IP6X
Enclosure	8264/.....-2: Stainless steel (SS316) 8264/.....-3: Aluminium AlSi7Mg (saltwater-proof according to EN 13195-1)
Ambient temperature range	standard: - 55 ... + 60 °C with explosion protection Ex d IIB + H ₂ : - 20 °C ... + 60 °C (on request)

Power dissipation

Empty enclosure	T _a = 40 °C			T _a = 50 °C			T _a = 60 °C		
	T6	T5	T4	T6	T5	T4	T6	T5	T4
8264/.112 8264/.114	55 W	80 W	170 W	34 W	54 W	125 W	19 W	35 W	89 W
8264/.212 8264/.214	75 W	120 W	235 W	47 W	81 W	173 W	26 W	52 W	122 W
8264/.222 8264/.224	115 W	160 W	320 W	71 W	108 W	236 W	39 W	69 W	167 W
8264/.223 8264/.225	125 W	190 W	370 W	78 W	129 W	273 W	43 W	82 W	193 W
8264/.323 8264/.325	160 W	240 W	465 W	99 W	163 W	343 W	55 W	104 W	242 W
8264/.333 8264/.335	200 W	300 W	565 W	116 W	190 W	417 W	64 W	122 W	294 W
8264/.933 8264/.935	301 W	447 W	810 W	207 W	355 W	598 W	114 W	227 W	422 W
8264/.993 8264/.995	347 W	520 W	933 W	248 W	405 W	826 W	137 W	259 W	583 W

Weight

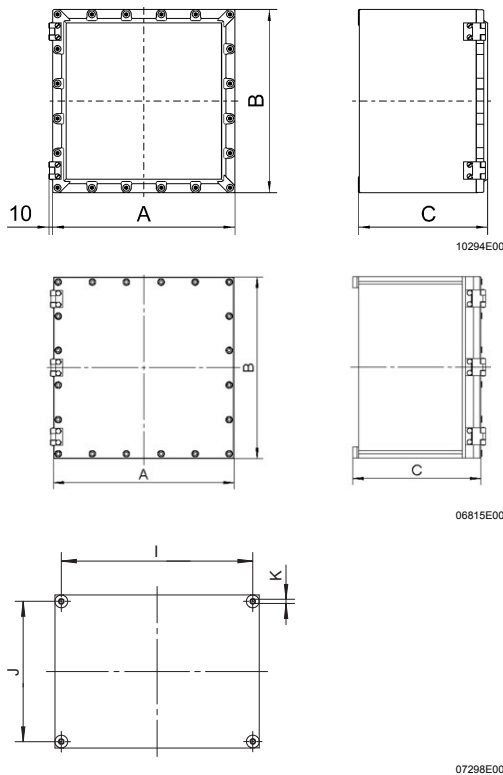
Stainless Steel

Empty enclosure	Enclosure	Enclosure cover
8264/.112-2	32 kg	9 kg
8264/.212-2	52 kg	14 kg
8264/.222-2	82 kg	23 kg
8264/.223-2	65 kg	23 kg
8264/.323-2	110 kg	31 kg
8264/.333-2	140 kg	43 kg
8264/.933-2	185 kg	67 kg
8264/.993-2	270 kg	95 kg

Aluminum

Empty enclosure	Enclosure	Enclosure cover
8264/.112-3	11 kg	3 kg
8264/.114-3	12 kg	4 kg
8264/.212-3	19 kg	4 kg
8264/.214-3	20 kg	5 kg
8264/.222-3	25 kg	6 kg
8264/.224-3	27 kg	8 kg
8264/.223-3	30 kg	6 kg
8264/.225-3	32 kg	8 kg
8264/.323-3	42 kg	11 kg
8264/.325-3	42 kg	11 kg
8264/.333-3	52 kg	14 kg
8264/.335-3	52 kg	14 kg
8264/.933-3	90 kg	32 kg
8264/.935-3	90 kg	32 kg
8264/.993-3	153 kg	51 kg
8264/.995-3	150 kg	48 kg

Dimensional Drawings (All Dimensions in mm) - Subject to Alterations



	A	B	C	I	J
8264/.112	235	235	270	205	205
8264/.114	235	235	260	205	205
8264/.212	360	235	270	330	205
8264/.214	360	235	260	330	205
8264/.222	360	360	270	330	330
8264/.224	360	360	260	330	330
8264/.223	360	360	340	330	330
8264/.225	360	360	330	330	330
8264/.323	480	360	340	450	330
8264/.325	480	360	330	450	330
8264/.333	480	480	340	450	330
8264/.335	480	480	330	450	330
8264/.933	730	480	340	700	450
8264/.935	730	480	330	700	450
8264/.993	730	730	340	700	700
8264/.995	730	730	330	700	700

K = M12

6 Transport, Storage and Disposal

Transport

- Shock-free in its original carton, do not drop, handle carefully.


Storage

- Store in a dry place in its original packaging



Disposal



- Ensure environmentally friendly disposal of all components according to the legal regulations.

7 Assembly

	If deployed outdoors / where exposure to the elements is the case, it is recommended to provide the explosion-protected electrical equipment with a protective cover or wall.
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- Place the Ex d enclosure on the mounting rail and connect it with M12 screws (pay attention to the weight, see chapter "Technical Data").

 WARNING	
	Danger through not approved cable glands! <ul style="list-style-type: none"> ▷ If a not approved cable entry gland is used, explosion protection can no longer be guaranteed. ► Only use cable entry glands, which are approved of for the required type of protection. ► When selecting or replacing cable entry glands, refer to the component documentation for the type and size of thread.

 WARNING	
	Danger through open holes or unused cable entries on the Ex e connection enclosure! <ul style="list-style-type: none"> ▷ Explosion protection is no longer guaranteed if holes or cable entries in the Ex e connection enclosure are left open. ► Always seal any open holes and unused cable entries with the certified stopping plugs or plugs. ► When selecting or replacing appropriate stopping plugs, refer to the component documentation for the type and size of thread.

 WARNING	
Danger from excessive weight! <ul style="list-style-type: none"> ► Use suitable lifting tool. ► Secure to prevent from toppling. 	

8 Installation

 WARNING	
Installation may only be performed by qualified personnel! <ul style="list-style-type: none"> ▶ Installation of the devices may only be carried out by appropriately authorised and trained personnel. ▶ Observe the relevant national regulations in the country of use. 	
 WARNING	
	Incorrectly installed components! <ul style="list-style-type: none"> ▶ Explosion protection cannot be guaranteed any more if the components are incorrectly installed. ▶ If crimped wire ends are used, these must be gas-tight and attached using an appropriate tool.
 WARNING	
	Danger from damaged joint surfaces! <ul style="list-style-type: none"> ▶ If the joint surfaces are damaged, it can no longer be guaranteed that the joint is flameproof. ▶ Handle the enclosure cover with care when putting it down and placing it on the enclosure. ▶ If the enclosure cover or the enclosure has a damaged joint surface, replace the respective part immediately.
 WARNING	
Danger from an excessively heavy enclosure cover! <ul style="list-style-type: none"> ▶ When opening, take into consideration that the enclosure cover is very heavy (see chapter "Technical Data"). ▶ Use suitable lifting tool. ▶ Attach a suitable hinge as necessary (see catalogue). 	

Opening the enclosure cover

- ▶ Unfasten the screws on the enclosure.
- ▶ Open and remove the enclosure cover carefully (pay attention to the weight, see chapter "Technical Data").

Closing the enclosure cover

- ▶ Treat the joint surface of the cover with acid-free grease (OKS seawater-resistant).
- ▶ Close and attach the enclosure cover carefully (pay attention to the weight, see chapter "Technical Data").
- ▶ Use the specified tightening torque.

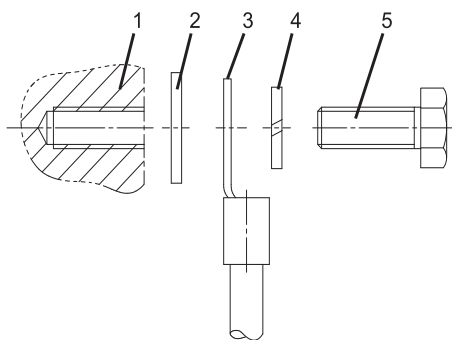
Type	Tightening torque [Nm]	Screw type
8264/.112- 8264/.212- 8264/.222- 8264/.223- 8264/.323- 8264/.333- 8264/.933-3 8264/.993-3	20	Cheese-head screws M10 x 30 A4-70 as per ISO 4762
8264/.933-2 8264/.993-2	32	Cheese-head screws M12 x 30 A4-80 as per ISO 4762

Connection terminals

Tighten the screws of the connection terminals in accordance with the specified connection torques.

Dimension of screws	M3	M4	M5	M6	M8	M10
Connection torque [Nm]	0.8	2.0	3.5	5.0	10.0	17.0



Protective earth conductor



06817E00

- ▶ When using the external earthing connection terminal, connect the PE conductor to the enclosure (1) with a cable lug (3). After the cable lug use a washer (2) and secure the screw (5) with a screw locking (4) to prevent it from coming loose.
- ▶ Regardless of the operating voltage, connect all bare, non-energised metal parts to earth / grounding system.
- ▶ The external protective earthing conductor is designed to be fitted with a cable lug. The cable must be laid snugly against the enclosure so that a entanglement of the cabling is prevented.

9 Maintenance

⚠ WARNING	
	Danger from energised parts!
	▷ Risk of severe injuries.
	▶ Before any maintenance work commences, disconnect the device from the power supply.
	▶ Secure the device against unauthorised activation.
⚠ WARNING	
Risk due to unauthorised work being performed on the device!	
▷ There is a risk of injury and damage to equipment.	
▶ Mounting, installation, commissioning, operation and maintenance must only be performed by personnel who are both authorised and suitably trained for this purpose.	
▶ The dimensions of the flameproof flat joint do not comply with tables 1 or 2 from standard IEC/EN 60079-1. Contact the manufacturer before starting to work on the joint surfaces.	
⚠ WARNING	
	Short-circuit in the circuit
	▷ After multiple short circuits, the flameproof encapsulation is no longer guaranteed.
	▶ After a short circuit, check the functionality of the device.
	▶ Replace the entire device if needed.

9.1 Cleaning

- ✗ Clean with a cloth, brush, vacuum cleaner or similar items.

10 Accessories and Spare Parts

⚠ WARNING
Use of non-approved accessories and spare parts.
▷ The manufacturer's liability and warranty expire.
▶ Use only original accessories and original spare parts manufactured by R. STAHL.

11 EC Declaration of Conformity

EG-Konformitätserklärung EC-Declaration of Conformity Déclaration de Conformité CE



Wir; we; nous

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8264/.

erklären in alleiniger Verantwortung, dass das Produkt
hereby declare in our sole responsibility, that the product
déclarons, sous notre seule responsabilité, que le produit

Leergehäuse
Flameproof enclosure
Enveloppe antidéflagrante

mit der EG-Baumusterprüfbescheinigung:
under EC-Type Examination Certificate:
avec Attestation d'examen CE de type:

KEMA 01 ATEX 2145 U
(KEMA Quality B.V.)
Utrechtseweg 310, 6812 AR Arnhem, NIEDERLANDE)

auf das sich diese Erklärung bezieht, mit den folgenden Normen oder normativen Dokumenten übereinstimmt
which is the subject of this declaration, is in conformity with the following standards or normative documents
auquel cette déclaration se rapporte, est conforme aux normes ou aux documents normatifs suivants

Bestimmungen der Richtlinie Terms of the directive Prescription de la directive	Nummer sowie Ausgabedatum der Norm Number and date of issue of the standard Numéro ainsi que date d'émission de la norme
94/9/EG: ATEX-Richtlinie 94/9/EC: ATEX Directive 94/9/CE: Directive ATEX	EN 60079-0: 2006 EN 60079-1: 2007 EN 61241-0: 2006 EN 61241-1: 2004
2004/108/EG: EMV-Richtlinie 2004/108/EC: EMC Directive 2004/108/CE: Directive CEM	
Allgemeine Normen ohne Bezug auf eine Richtlinie General standards without reference to a directive Normes générales sans référence à une directive	EN 60439-1: 1999 + A1: 2004

Waldenburg, 28. Jan. 2010

Ort und Datum
Place and date
Lieu et date

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